

# **FIXED-TERM EMPLOYMENT CONTRACT AS A MANAGEMENT TOOL FOR THE INNOVATION ACTIVITIES OF ENTERPRISES (BELARUSIAN EXPERIENCE)**

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**Abstract:** The article presents the results of scientific research on the role of labour factors, fixed-term employment contract, in particular, in the innovation activity of organizations of Belarus. The influence of the fixed-term employment contracts on the innovative activity of enterprises has been identified. It has been proven that the smaller scale of the organization, the more often they use a fixed-term employment contract. It is proved that if organizations have a fixed-term employment contract, they are more innovative and innovative organizations are active.

**Keywords:** contract of employment, labour relations, innovation, innovation activity, labour market.

**JEL-calcification:** J21, I121, I122.

## **Introduction**

As far as the level of innovation activities of Belarus, the country is inferior not only to many industrial countries, but to the countries of Central and Eastern Europe. Belarus has been making efforts to search the prerequisites for the growth of innovation activity. In the area of labour relations, it is advisable to ascertain the influence of the institutional factor

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on the innovation activity of organizations. In this paper, institutional factors related to employment contract have been explored.

In the scientific research, there are several major areas of influence of the fixed-term employment contracts for the innovative activity of enterprises. (Smirnykh, 2015; Franceschi, Mariani, 2014; Malgarini, Mancini, Pacelli, 2011):

- enterprises are not interested or little interested in investing in the training of temporary workers with fixed-term employment contracts. As a result, there is a reduction in the accumulation of human capital, which, in turn, leads to a decrease in innovation activity;

- tough labour legislation with high protection of workers against layoffs reduces labour mobility and redistribution of workers in the sectors of the economy;

- costly procedure for dismissal under strict regulation of labour relations prevents the reduction of labour costs in the introduction of innovations by enterprises;

- fixed-term employment contracts reduce the costs of dismissing employees for enterprises, increase labor mobility and contribute to achieving better matching between employees and work, which leads to flexibility of the labor market through fixed-term employment contracts;

- strict regulation of the labour market (high employment protection, restrictions on the layoffs and/or replacement of workers) reduces the level of productivity of enterprises and, as a result, leads to a decrease in their innovative activity.

Thus, the impact of fixed-term employment contracts for innovative activity of enterprises is based on the possibility of ensuring high functional flexibility of the labour market and the internal labour market of an enterprise, in particular.

## **1. Characteristics of innovative activity of the organization**

The fundamental factors that determine the degree of innovative activity of companies include the scale of business, financial position, industry, the level of competition in product markets (Bogdan, 2013). As an

additional indicator, the age of the enterprise, ownership structure and export availability can be used.

The scale of a business is considered one of the most important factors in the innovative activity of enterprises. This is due to the fact that small or micro-organizations introduce innovations much less frequently. The financial position of an enterprise determines the potential possibilities of innovative behaviour: financially stable organizations prefer innovative oriented behaviour. The sectoral affiliation of an organization, related to its scale, determines the effectiveness of investments in innovative development. The organization's participation in competition by exporting products to other countries has a positive effect on innovation activity.

## **2. Data and research methodology**

The analysis of the impact of fixed-term employment contracts for innovative activity of enterprises was carried out by using the data of a survey of Belarusian enterprises in the areas of their innovative activity. The scientific and methodological approaches presented in the results of foreign researchers (Franceschi, Mariani, 2014; Malgarini, Mancini, Pacelli, 2011) and Russian scientists (Smirnykh, 2015) were used.

This sample covered 42 organizations from all regions of Belarus, which made it possible to ensure regional representativeness of the sample. The study used data from a survey of organizations relating to their business activities in 2015-2016. The main experts were the heads of organizations related to 11 types of economic activity (agriculture, industry, construction, trade, transport and communications, financial activities, public administration, education, health). The leaders of organizations with number of employees from 20 to 4000 people were surveyed. The sample includes the largest organizations of Belarus by average number of employees. Such a representativeness in the number of employees will provide the research results with a certain degree of objectivity.

### 3. The results of the research

The study of organizations contains information on the use of fixed-term labour contracts, as well as indicators of their use of innovations and information on the results of enterprises' economic activities. The survey is a non-panel sample.

The innovative activities of enterprises were determined on the basis of the questionnaire: "Which of the listed innovative activities did your enterprise finance in 2015–2016?" It was assumed that an enterprise had innovative activity if it financed at least one of the listed types of activities:

- introduction of new or significantly improved products to the market;
- the introduction of new or significantly improved production technology;
- conducting research and development, design and technological developments;
- acquisition of machinery and equipment related to the introduction of new products and production processes;
- acquisition of new technologies (patents and licenses) related to the introduction of new products and production processes;
- training of personnel in connection with the introduction of new products and production processes.

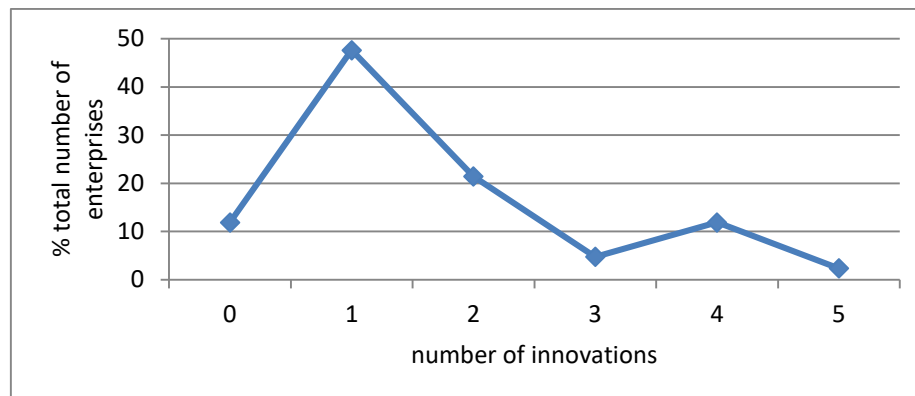
Based on this definition of innovation activity, it was stated that 47.6% of organizations have at least one type of innovation. This is almost 2 times more than that of Russian organizations (24.46%) that participated in a similar survey (Smirnykh, 2015). The most sought-after innovations in Belarusian organizations are the acquisition of machinery and equipment in connection with the introduction of new products and the construction (repair, re-equipment) of buildings and structures (Table 1).

Two types of innovations were present in 21.4% of organizations (according to the results of a Russian survey - 9.37%), three types of innovations were in 4.8% of organizations (Russia - 5.06%), four - 11.9% and five – 2.4% (Russia has four and five innovations - 1%). The average number of innovations per Belarusian organization was 1.64 (Figure 1). On average, one Russian organization - 1.7.

*Table 1*  
*Types of innovations used in organizations*

View of innovation	Number of innovations
Introduction to the market of new or significantly improved products	10
The introduction of new or significantly improved production technology	10
Conducting research and development, design and technological developments	4
Acquisition of machinery and equipment in connection with the introduction of new products, etc.	13
Acquisition of new technologies (patents, licenses, etc.) in connection with the introduction of new products, etc.	6
Education, training and retraining of personnel in connection with the introduction of new products, production processes.	12
Construction (purchase), repair, re-equipment of buildings and structures	14

Source: (Smirnykh, 2015)



Source: own development

*Figure 1. The distribution of the number of innovations by organization*

The level of innovation activity of organizations represented in the sample was determined according to the methodology of Russian scientists (Smirnykh, 2015) and was calculated as the ratio of the number of organizations that had at least one type of innovation to the total number of organizations surveyed in

2015-2016. For the presented sample, the level of innovation activity of organizations amounted to 88.09%, while 23% of organizations had innovations that belong to the technical or technological type (enterprises financed new or significantly improved technologies). Similar results of Russian scientists were reduced to 41.6% and 10% respectively.

The use of fixed-term labour contracts by organizations was determined by means of a questionnaire: "In 2015 and 2016, were there employees of fixed-term contracts among employees of your company? If so, what is the proportion of people employed under fixed-term contracts in the average number of employees in 2015 and in 2016?" (Table 2). Based on the responses received, the following indicators were calculated:

**Table 2**  
*Use of fixed-term employment contracts and innovative activity*

Fixed-term contracts	Number of organizations	%	Have there been innovations?		
			yes	no	share with innovation, %
to have	31	73,8	29	2	93,54
no	11	26,2	8	3	72,72

Source: own development

Statistics on the use of fixed-term labour contracts in the context of the scale of the surveyed organizations (Table 3) showed:

**Table 3**  
*Use of fixed-term employment contracts and the scale of organizations*

Size of enterprise	Number of enterprises	Of them, with fixed-term contracts	Percentage of employees with fixed-term employment contracts, %	Number of organizations that used innovations
up to 100 people	11	9 (81%)	100	25
100-500 people	17	6 (35%)	27	23
>500 people	14	10 (71%)	8	21

Source: own development

a) a description of the share of organizations with fixed-term labour contracts (31 organizations (73.8%)). The share of organizations without the conclusion of fixed-term employment contracts - 11 (26.2);

## FIXED-TERM EMPLOYMENT CONTRACT AS A MANAGEMENT ...

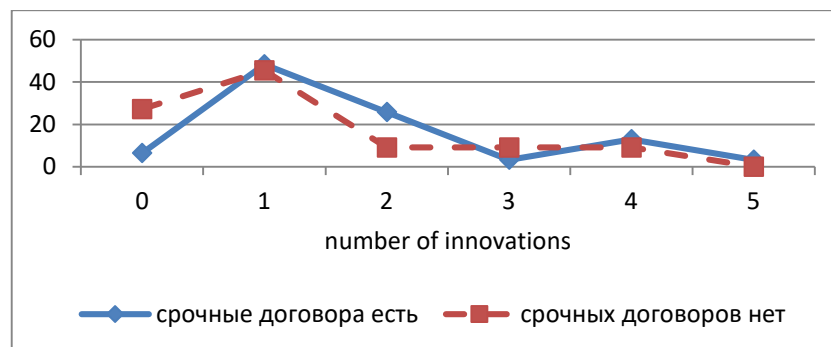
b) the intensity of innovation activity of organizations with fixed-term labour contracts (93.5%) and without them (72.7%);

c) the share of organizations with fixed-term labour contracts by the criterion of its scale (list number of employees);

d) the share of employees in the payroll number of personnel working under fixed-term employment contracts.

The statistics revealed that the smaller the organization's scale, the more often they use fixed-term labour contracts: organizations less than 100 people use these types of contracts in 81% of cases. Medium-sized organizations are less likely to use fixed-term contracts (in 35% of cases). The share of employees in the payroll number of the average in the sample covered by fixed-term employment contracts amounted to 45.3%. But, in small organizations (less than 100 people) using fixed-term employment contracts, 100% of employees are employed under these conditions. In large organizations with more than 500 employees, the share of workers employed on a term labour contract is on average no more than 8%.

The share of organizations that had innovations in 2015-2016 is higher, where term contracts with employees were signed. This difference is statistically significant ( $p < 0.05$ ). However, organizations that do not have this type of contract also have innovative activity that is high. Statistical estimates of the distribution of the number of innovations in groups of organizations with fixed-term employment contracts and without them indicate a lack of clear differences (Figure 2).



Source: own development

Figure 2. The number of innovations in organizations with fixed-term employment contracts and without them.

Analysis of the factors that traditionally matter for the innovative activity of organizations was possible within the framework of a research sample.

1. The presence of investments in organizations in the period 2015-2016. Groups of organizations were formed according to the criterion of the presence (absence) of investments. Moreover, in these groups, the effect of innovative activity was controlled.

The share of organizations with innovations is greater in the group where investments were made (96% and 71%). This difference is significant by criterion 2 (the value of the criterion 5.31) and by the level of significance ( $p = 0.016$ ). This confirms the financial nature of innovative activity of organizations in Belarus.

2. The relationship of the results of economic activities of organizations (profitability) with the presence of fixed-term employment contracts and innovative activity in the period 2015-2016.

In a sample of 42 organizations, 36 indicated a certain level of profitability. As can be seen from table 8, practically all profitable enterprises work under fixed-term employment contracts (27) and have innovations (32). It is necessary to assume a positive relationship between the profitability of organizations, the presence of fixed-term employment contracts and the innovative activity of Belarusian organizations.

3. For the purposes of this study, a block of personnel questions was formed, allowing to determine the presence of a connection between the characteristics of the staff (age of employees, level of education of employees and level of staff turnover) and innovative activity of organizations. The definition of such a relationship will reveal the need to conclude fixed-term employment contracts in order to ensure the innovative activity of organizations.

A) In the framework of the estimated sample of Belarusian organizations, the average age of employed workers was 40-50 years (this was indicated by the majority of organizations (74%) in the sample).

In addition, these same 74% of enterprises have the largest number of implemented innovations over the study period.

So, it should be assumed that for organizations of Belarus the most innovatively active are middle aged employees between 40 and 50 years of



## **FIXED-TERM EMPLOYMENT CONTRACT AS A MANAGEMENT ...**

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age. According to the theory of human capital, it is in this age period that returns from specific human capital occur, which is the reason for the innovative development of organizations.

C) According to the same theory, the level of education of workers is a prerequisite for innovative activity of an organization.

However, these samples of Belarusian organizations do not correlate with the axiom of the theory of human capital that the higher the level of education of workers (or the number of years of workers' training), the higher the return on this capital is. It manifests itself through an increase in the productivity of workers, the formation of their creative behavior, adaptability to new technologies, etc. This is the basis for the innovative behaviour of employees and the organization as a whole.

Belarusian employers in the labour market are most in demand with secondary and specialized secondary education. This fact was confirmed in the research sample, as evidenced by the share of enterprises (54%), where in the average number of employees the majority are workers with secondary specialized education. This group of organizations has the most significant level of innovation activity. In organizations, where the number of employees with higher education is higher, the level of innovative activity is 2 times lower.

C) The turnover rate in an organization is an indicator, on the one hand, of the active use of fixed-term labour contracts, since workers become more mobile, on the other hand, the efficiency of personnel use in order to consolidate it in the organization and the formation of an innovative personnel core. Analysis of groups of organizations in terms of staff turnover (less than 5%, 6-10% and more than 10%) has shown the following:

First, the sample includes organizations with a staff turnover rate of no more than 10%. Approximately the same ratio of organizations in the first two groups;

Secondly, as with organizations with a minimum level of staff turnover, and with organizations with a level of turnover no more than 10%, innovation activity is the same.

Therefore, it should be assumed that the turnover rate for Belarusian organizations is not a factor in their innovative activity.

## Conclusion

1. Most of the surveyed organizations have a technical and technological level equal to the industry average (52%). More than 90% of enterprises have (albeit minor) investments. The results have shown that 47% of the surveyed organizations have at least one innovation during the year. The difference between Belarusian organizations is that they equally introduce innovations regardless of size. Small organizations in Europe demonstrate a high degree of innovation activity, while in Russia enterprises with innovations are more often represented among large enterprises.

2. Fixed-term employment contracts exist in most of the organizations surveyed (73.8%). The share of employees employed under fixed-term employment contracts in relation to the number of employees of all organizations averaged 45.3%.

3. The results of the descriptive analysis show that if organizations have fixed-term employment contracts, innovations are more common and organizations are innovatively active. The probability of innovation in enterprises with fixed-term employment contracts was 93.5%. Among the organizations that used fixed-term labour contracts, the number of innovative organizations is greater than in organizations without this type of contract.

4. Organizations are not interested (little interested) in investing in the training of temporary workers with fixed-term labour contracts. As a result, there is a reduction in the accumulation of human capital, which, in turn, contributes to a decrease in innovation activity.

5. The smaller the scale of the organization, the more often they use fixed-term employment contracts. Medium-sized organizations are less likely to use fixed-term contracts. Innovative activity of organizations does not depend on its size or the number of employed workers.

6. All profitable organizations operate using fixed-term employment contracts and have innovations. It is necessary to assume a positive relationship between the profitability of organizations, the presence of fixed-term employment contracts and innovative activity.

7. For organizations of Belarus, the most innovatively active are the middle-aged employees, between 40 and 50 years of age.

## **FIXED-TERM EMPLOYMENT CONTRACT AS A MANAGEMENT ...**

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An important result of this analysis is the fact that Belarusian organizations are trying to introduce innovations in the framework of the old (not efficient) technologies that are professionally served by employees with secondary special education. Employees with higher education are not yet in demand and are not active participants in innovative development. In this regard, Belarusian organizations do not have the need to secure qualified workers with higher education within the framework of perpetual labour contracts (or contracts). Under these conditions, it is more efficient to maneuver the number of average-skilled workers with the help of fixed-term employment contracts based on market conditions.

8. In general, the results of the assessment of the impact of fixed-term labour contracts for the innovative activity of Belarusian organizations have shown that there are innovations both in organizations with fixed-term labour contracts and in organizations, for which there are no such agreements.

For an unambiguous and objective answer to the question “Are urgent labour contracts an economic incentive for the introduction of innovations in organizations?” a number of additional studies are needed with a much more expanded sample of Belarusian organizations. It is likely that the obvious reasons for the use of fixed-term labour contracts will be the “effect of their impact” on innovation through reducing the shortage of financial (investment) funds. Deficit reduction will occur at the expense of savings (or release) of funds for the maintenance and retention of staff in the organization. A significant employment contract will be for economically unstable organizations that operate in conditions of risk and uncertainty. In this case, a fixed-term employment contract will be a flexible adjustment and may increase the likelihood of innovation.

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**CONTENTS**

**INFORMATION AND COMMUNICATIONS technologies**

**AN INTEGRATED MODEL FOR DESIGNING AND DEVELOPING  
A KEY PERFORMANCE INDICATORS SYSTEM**

Snezhina Lazarova, PhD Student  
Prof. Kamelia Stefanova, PhD ..... 5

**DEVELOPMENT OF INFORMATION TECHNOLOGY AND ITS  
IMPACT ON THE FORM OF INFORMATION SERVICES**

Aleksandar Petrov, PhD Student ..... 23

**BUSINESS practice**

**FIXED-TERM EMPLOYMENT CONTRACT  
AS A MANAGEMENT TOOL FOR THE INNOVATION ACTIVITIES  
OF ENTERPRISES (BELARUSIAN EXPERIENCE)**

Prof. Nataliya Makovskaya, PhD ..... 39

**THE IMPACT OF INNOVATION ON PERFORMANCE OF SMALL  
AND MEDIUM ENTERPRISES (SMES) IN ALGERIA**

Dr. Djabari Abdelouahab ..... 51

**OPPORTUNITIES FOR DEVELOPMENT OF THE SOCIAL  
AND ECONOMIC POTENTIAL OF THE PROPHYLAXIS  
AND REHABILITATION PROGRAMME OF THE NSSI**

Ivan Grozdanov Ivanov, PhD ..... 65

**LIST OF THE ARTICLES FOR THE YEAR XXVIII (2018) ..... 83**

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